



STATE OF THE GLOBAL QUANTUM INDUSTRY 2026

QUANTUM SENSING MARKET FORECAST

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The Quantum Economic Development Consortium (QED-C) is the world's premier association of pioneers in the quantum technology marketplace. Members of QED-C enable the real-world application of quantum technology, and, in turn, grow a robust commercial industry and supply chain.

Sitting at the intersection of technology, academia, business, entrepreneurship, and policymaking, QED-C is uniquely able to foster the collaborations the industry needs. QED-C is where experts and organizations share knowledge and collectively shape how quantum technology will grow.

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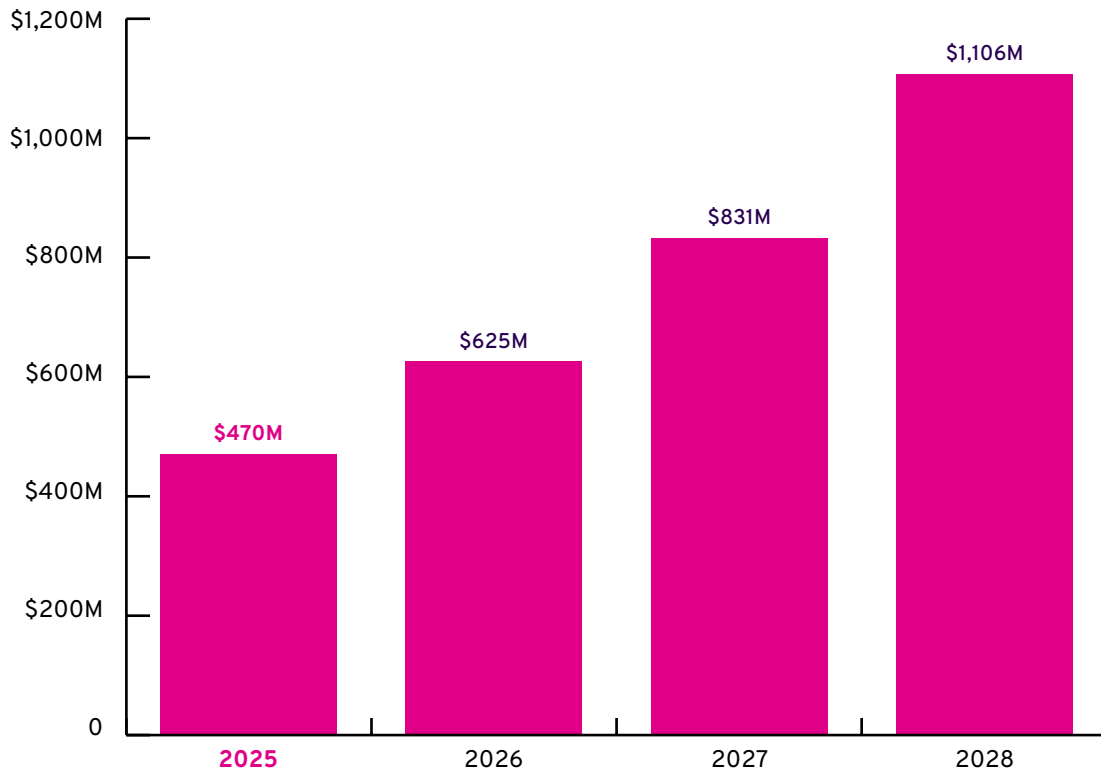
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EXECUTIVE SUMMARY

This global quantum sensing market analysis and forecast reflects a developing market moving from early commercialization toward broader adoption. It is characterized by sustained growth and strong government demand. The market is estimated at approximately \$470 million in 2025 and is projected to reach to \$1.1 billion by 2028 (figure 1), representing average annual growth of 32%. Demand spans multiple technology platforms, applications, and end-use markets rather than a single dominant modality. Government, particularly defense, continues to shape overall market structure and trajectory, even as commercial participation expands; aerospace remains the leading commercial opportunity, with biosciences showing incremental growth.

FIGURE 1: GLOBAL QUANTUM SENSING MARKET ESTIMATES, 2025–28



Source: QED-C

Based on responses from 58 participants representing 47 distinct companies, the quantum sensing segment comprises a mixed company structure. Most respondent companies are privately held and generally focused on quantum sensing activities, while publicly traded respondents are more often diversified companies for which quantum sensing represents one component of a broader portfolio. Funding is also diversified, but government-supported research and development remains the most common source of support, alongside internal budgets and early end-user payments. The market nevertheless remains early stage, with more than one-third of respondents reporting no quantum sensing sales in 2025.

Technologically, the quantum sensing landscape remains varied. Rydberg atoms are most prevalent, followed by photons, neutral atoms and solid-state spins. Atomic clocks and magnetometers continue to anchor the application mix, with quantum imaging, photon detectors, inertial sensors, and gravimeters providing additional breadth.

The market is beginning to mature. Nearly a third of respondents report their primary technology as commercially available in 2025, rising to 58% by 2028.

From a revenue perspective, combined government segments (defense and civil) are projected to represent 47% of the quantum sensing market in 2028, with defense alone accounting for 35% and remaining the single largest individual segment. The commercial market is projected to reach 34% of total revenue in 2028, increasing from 25% in 2025, while academic participation declines modestly. Overall, the quantum sensing market exhibits credible growth anchored in government demand, expanding commercial participation, and varied technologies across established end-use ecosystems.

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The complete *State of the Global Quantum Industry 2026 Report* also includes the *Industry Overview & Methodology, Quantum Computing Market Forecast, and Regional Analysis and Global Trends* reports.

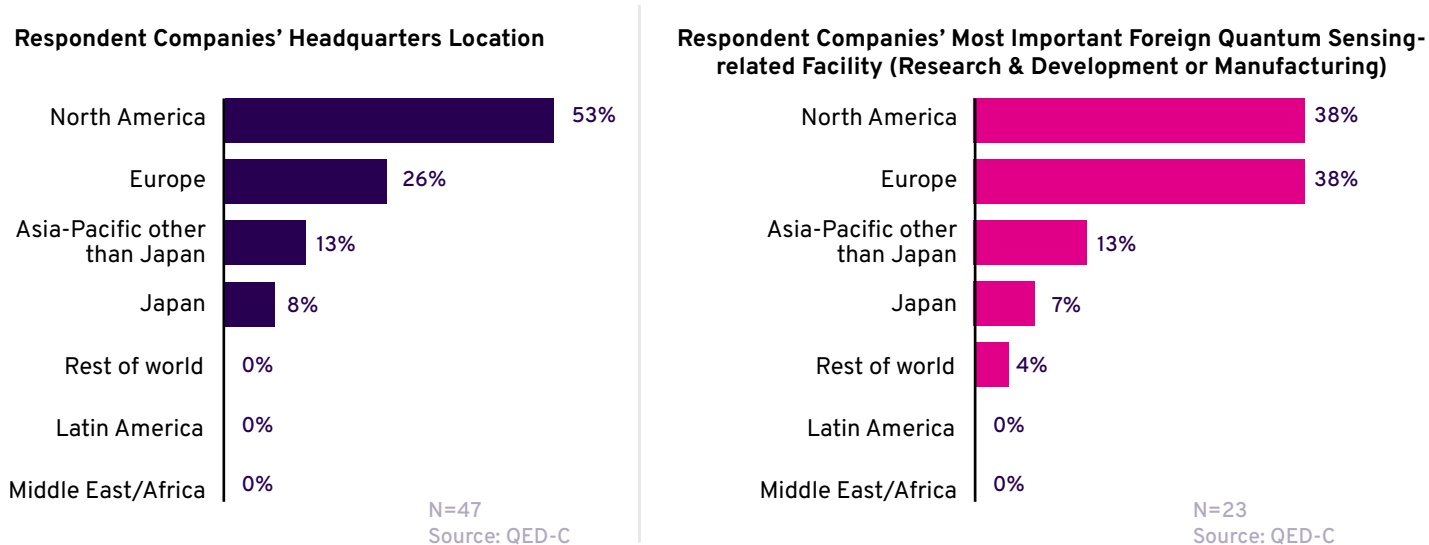
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MARKET CHARACTERISTICS

The survey gathers insights spanning various regions, company sizes, levels of quantum-related revenue, product types, partnership models, and overall industry outlooks. The resulting dataset offers a structured, evidence-based view of the current quantum sensing market, along with informed expectations for how it is likely to develop.

Commercial activity in the quantum sensing segment extends beyond headquarters location, reflecting cross-border research and production integration. Of the 47 quantum sensing companies surveyed, 53% are headquartered in North America, 26% in Europe, and 13% in Asia-Pacific excluding Japan, which accounts for 8% (figure 2). Beyond headquarters location, nearly half of respondent companies report maintaining a quantum sensing-related research and development (R&D) or manufacturing activity outside their home country. Europe and North America are equally represented as having the most important foreign quantum sensing-related facilities (38% each), followed by Asia-Pacific excluding Japan (13%) and Japan (7%).

FIGURE 2: 2025 QUANTUM SENSING (QS) COMPANY LOCATIONS



Quantum sensing companies are anchored in direct hardware sales while operating across multiple levels of product complexity. Direct selling of quantum sensing hardware is the most frequently selected primary activity, with 43% identifying it as their single most important offering, and almost three-quarters (71%) identifying it as among their top three products/services (table 1). Subassembly or component supply and quantum sensing integration services follow, each selected by 20% as the top-ranked activity. Direct sales of quantum sensing software account for 6% of first-ranked responses. Reseller activity is minimal.

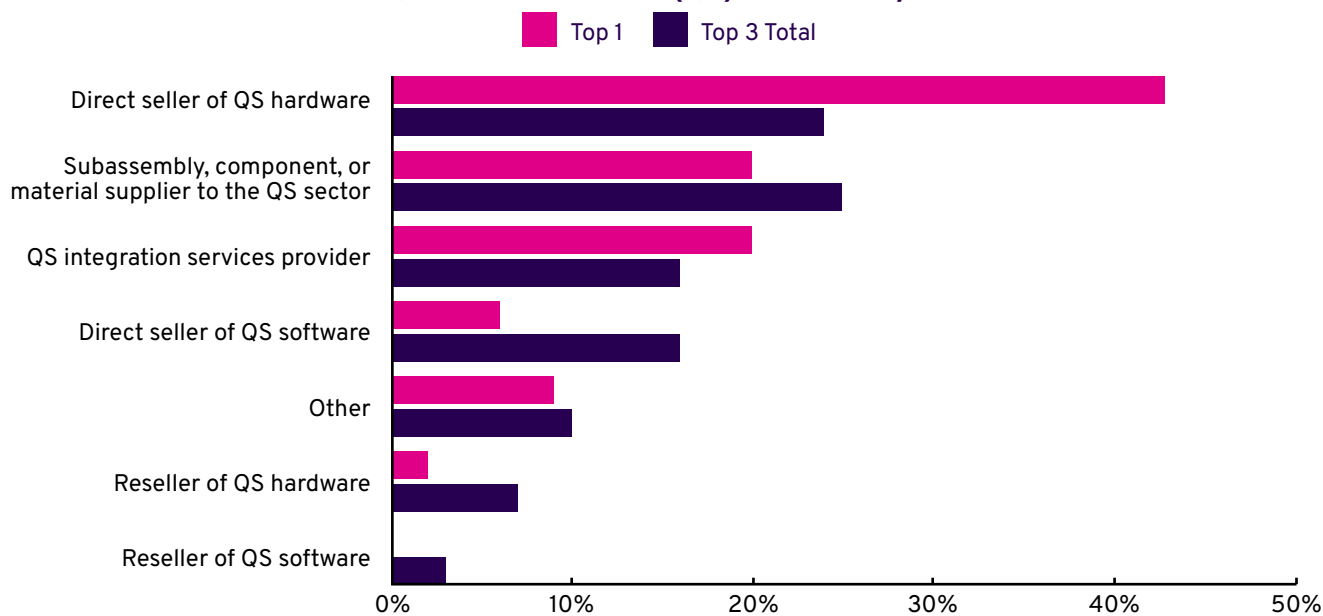
TABLE 1: TOP THREE QUANTUM SENSING (QS) PRODUCTS/SERVICES IN RANK ORDER

| Response | #1 | #2 | #3 |
|---|-----|-----|-----|
| Direct seller of QS hardware | 43% | 23% | 5% |
| Subassembly, component, or material supplier to the QS sector | 20% | 40% | 15% |
| QS integration services provider | 20% | 17% | 10% |
| Direct seller of QS software | 6% | 8% | 35% |
| Other | 9% | 6% | 15% |
| Reseller of QS hardware | 2% | 3% | 15% |
| Reseller of QS software | 0% | 3% | 5% |

N=46, Select top three options that apply in order of importance

Source: QED-C

FIGURE 3: TOP THREE QUANTUM SENSING (QS) PRODUCTS/SERVICES IN AGGREGATE



N=46, Select top three options that apply in order of importance

Source: QED-C

When broader engagement across all top-three selections is considered, subassembly component supply and direct hardware sales are the dominant commercial activities. When considering the combined top-three products/services, subassembly or component supply represents the largest share of total responses at 25%, followed closely by direct sales of quantum sensing hardware at 24% (figure 3). Direct sales of quantum sensing software and integration services each account for 16%. Other activities represent 10%, while reseller activity remains comparatively limited at 7% for hardware and 3% for software.

Quantum sensing companies rely on a broad mix of financial inputs, with government-supported research and development (R&D) and internal organizational budgets representing the most prevalent sources, alongside meaningful levels of end-user revenue and more limited venture capital participation. Sixty-nine percent of respondents report that they receive government funding for R&D and that, on average, it represents approximately 56% of total financial input, with reported values ranging from 10% to 100% (table 2). Internal organization R&D budgets are cited by 44% of respondents, and commercial end-user payments for quantum sensing products and services are reported by 31%. This indicates that a subset of the segment has begun generating revenue. Academic and government end-user payments each account for 22% of responses. Venture capital participation in quantum sensing remains

TABLE 2: QUANTUM SENSING (QS)-RELATED FUNDING SOURCES

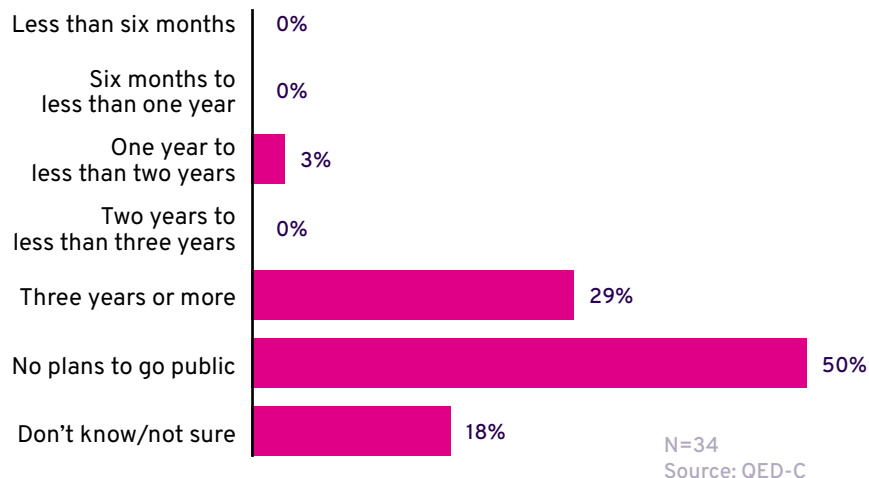
| Funding Source | % Selected | Average | High | Low |
|---|------------|---------|------|-----|
| Government-provided R&D funding | 69% | 56% | 100% | 10% |
| Internal organization R&D budgets | 44% | 47% | 100% | 10% |
| Commercial end-user payments for QS products and services | 31% | 36% | 100% | 5% |
| Government end-user payments for QS products and services | 22% | 29% | 75% | 5% |
| Academic end-user payments for QS products and services | 22% | 44% | 100% | 10% |
| Venture capital funding | 14% | 47% | 100% | 30% |
| Other | 8% | 43% | 100% | 10% |
| Private loans | 6% | 22% | 25% | 20% |
| Commercial loans | 0% | 0% | 0% | 0% |
| Stock offerings | 0% | 0% | 0% | 0% |
| Don't know/Not sure | 11% | | | |

N=47

Source: QED-C

comparatively limited, cited by 14% of respondents, although among those that receive such funding, it represents an average of approximately 47% of total financial input, with reported values ranging from 30% to 100%. The quantum sensing segment is predominantly private, with limited near-term movement toward public-market financing. Seventy-two percent of respondent quantum sensing companies are privately held, while 28% are publicly traded. Among the 34 private companies, 50% report no plans to pursue a public offering, and 29% indicate that going public may be considered three years or more in the future (figure 4).

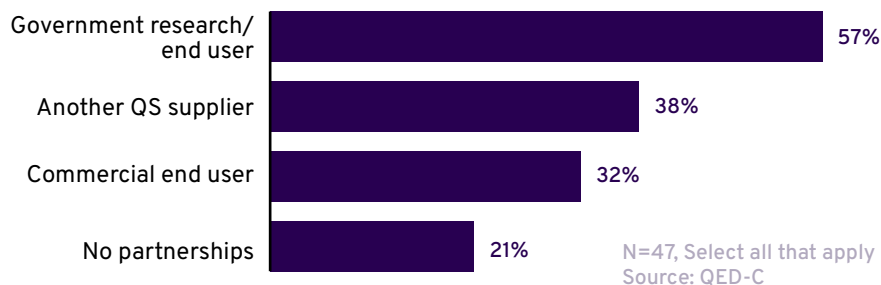
FIGURE 4: PRIVATE COMPANIES’ PLANS FOR PUBLIC OFFERING



Among the 13 publicly traded respondent companies, nearly 70% have been public for more than five years. These are typically large companies with diversified product portfolios and vertically integrated operations, and some have significant input into defense infrastructure and related suppliers. The presence of publicly traded industrial suppliers alongside smaller private quantum sensing specialists reflects a segment composed of both emerging, focused companies and established, multiproduct organizations.

Respondents were asked about their companies’ partnership activities—collaborative, mutually beneficial relationships aimed at achieving shared objectives, rather than outright business transactions. Government engagement remains central to partnership activity in the quantum sensing segment: 57% of the respondent companies report partnerships with government research organizations or end users (figure 5). Thirty-eight percent report partnerships with other quantum sensing suppliers, and 32% report partnerships with commercial end users. Thus government relationships are the most prevalent form of collaboration, with supplier-to-supplier and commercial engagements playing secondary but meaningful roles.

FIGURE 5: QUANTUM SENSING (QS) COMPANIES’ PARTNERSHIPS



Partnerships among suppliers appear less concentrated than in quantum computing. At the same time, commercial partnerships occur at similar levels to supplier partnerships, suggesting that product requirements may be more clearly defined and less exploratory. This pattern aligns with the characterization of quantum sensing as a replacement technology entering mature markets, where adoption depends on demonstrating measurable improvements over incumbent sensing solutions.

CURRENT AND PROJECTED REVENUE

Estimated total company revenues (inclusive of quantum sensing and other business lines) reflect a bifurcated structure. A portion of respondent companies report revenues exceeding \$1 billion, including 11% above \$10 billion (figure 6), indicating participation by large, diversified industrial suppliers. At the same time, 49% of respondents report total revenues below \$15 million.

FIGURE 6: RESPONDENT COMPANIES' TOTAL 2025 REVENUES

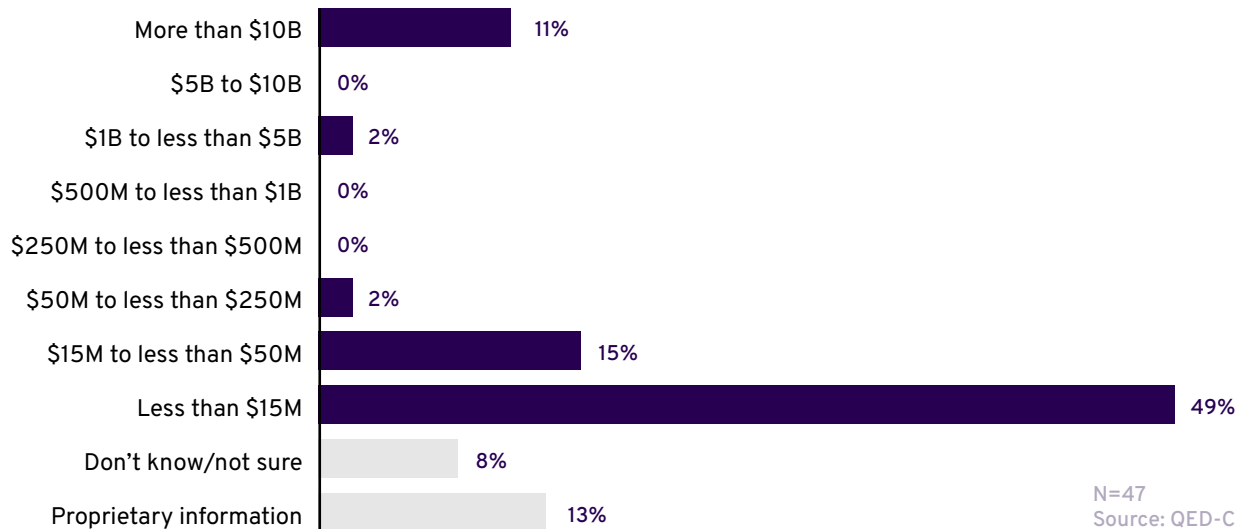
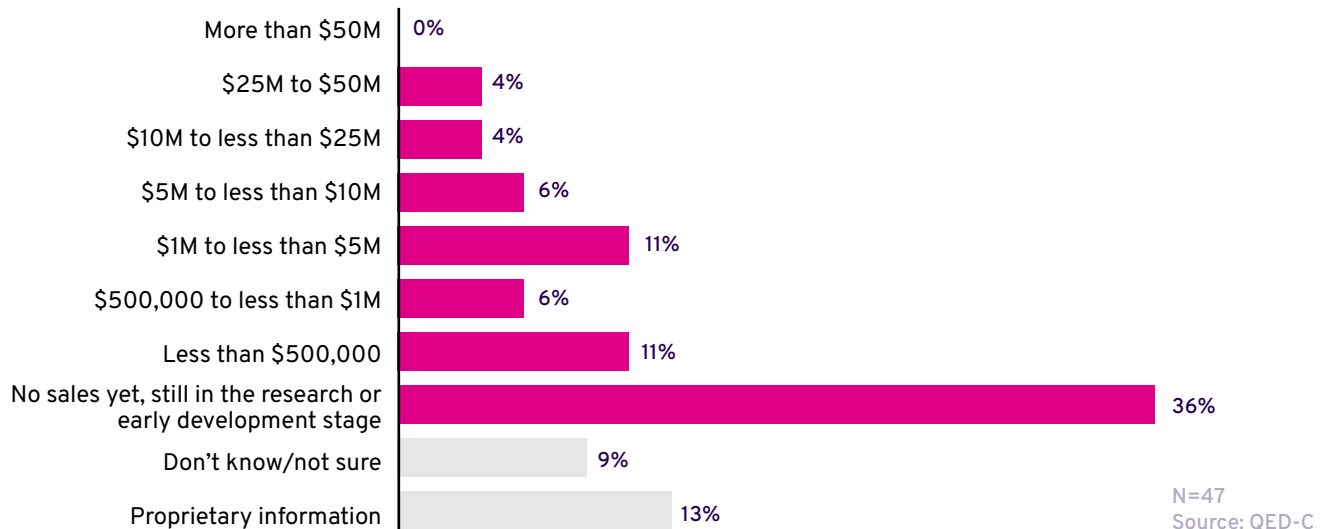
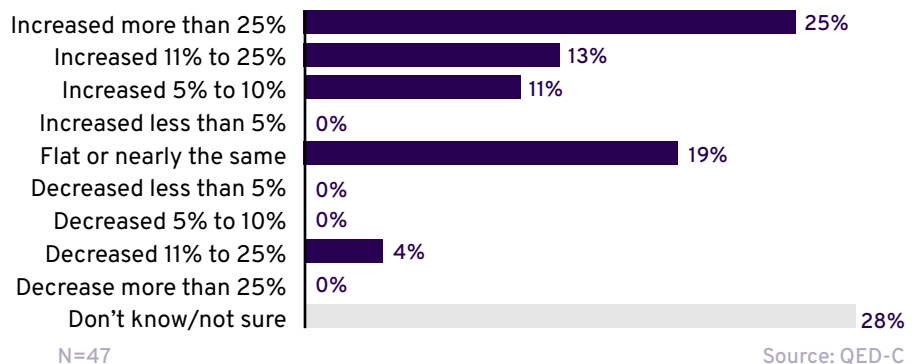


FIGURE 7: RESPONDENT COMPANIES' 2025 QUANTUM SENSING-SPECIFIC REVENUES



In contrast, quantum sensing-related revenues are concentrated at lower levels. Thirty-six percent of respondents report no quantum sensing sales in 2025 and remain in research or early development stages (figure 7). Among revenue-producing companies, 11% report less than \$500,000 in quantum sensing revenue. However, a small number of companies (4%) report quantum sensing revenues between \$25 million and \$50 million. The overall profile reflects a segment characterized by early-stage commercialization, with a few companies achieving measurable revenue scale.

FIGURE 8: RESPONDENT COMPANIES' REVENUE CHANGE FROM 2024 TO 2025



Quantum sensing companies report generally positive performance from 2024 to 2025. Twenty-five percent of companies report revenue increases exceeding 25%, 13% report increases between 11% and 25%, and 11% report increases between 5% and 10% (figure 8). Nineteen percent report revenues that were flat or nearly unchanged, and 28% indicate uncertainty. A small fraction report revenue declines.

Quantum sensing companies' revenue expectations for 2026 reflect increased optimism relative to the prior year's results. Sixty percent of respondents estimate an increase of at least 11% from 2025 to 2026: 30% anticipate revenue growth exceeding 25%, and an additional 30% expect increases between 11% and 25% (figure 9). The share of companies reporting revenues that were flat or nearly unchanged declined from 19% in the 2024–25 period to 8% projected for 2025–26. No respondents anticipate revenue decreases.

Global market estimates reflect broad optimism, although significant dispersion and uncertainty limit precision in projected market scale. Asked to estimate the size of the global quantum sensing market in 2025 and 2028, respondents indicate broad optimism regarding growth. Twenty-nine percent estimate the 2028 market at more than \$1 billion, and most expect upward movement relative to 2025 projections (figure 10).

FIGURE 9: RESPONDENT COMPANIES' REVENUE CHANGE FROM 2025 TO 2026

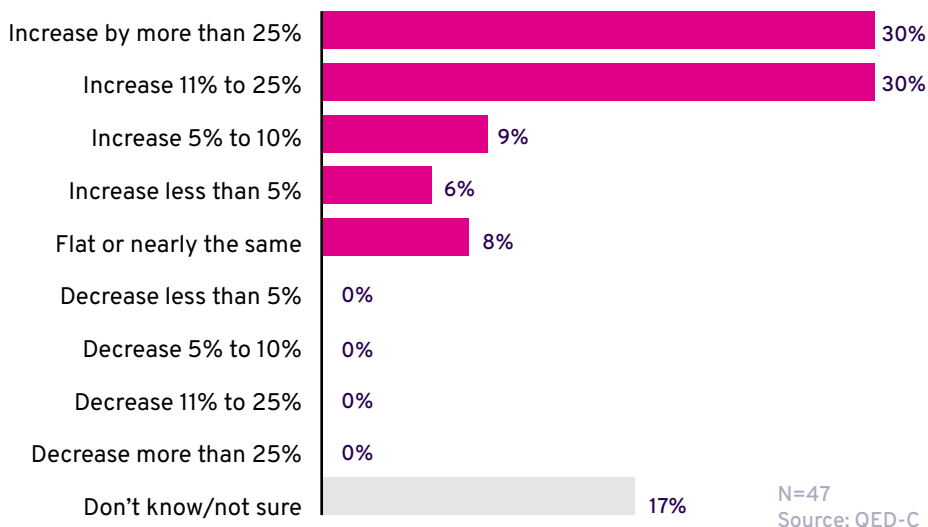
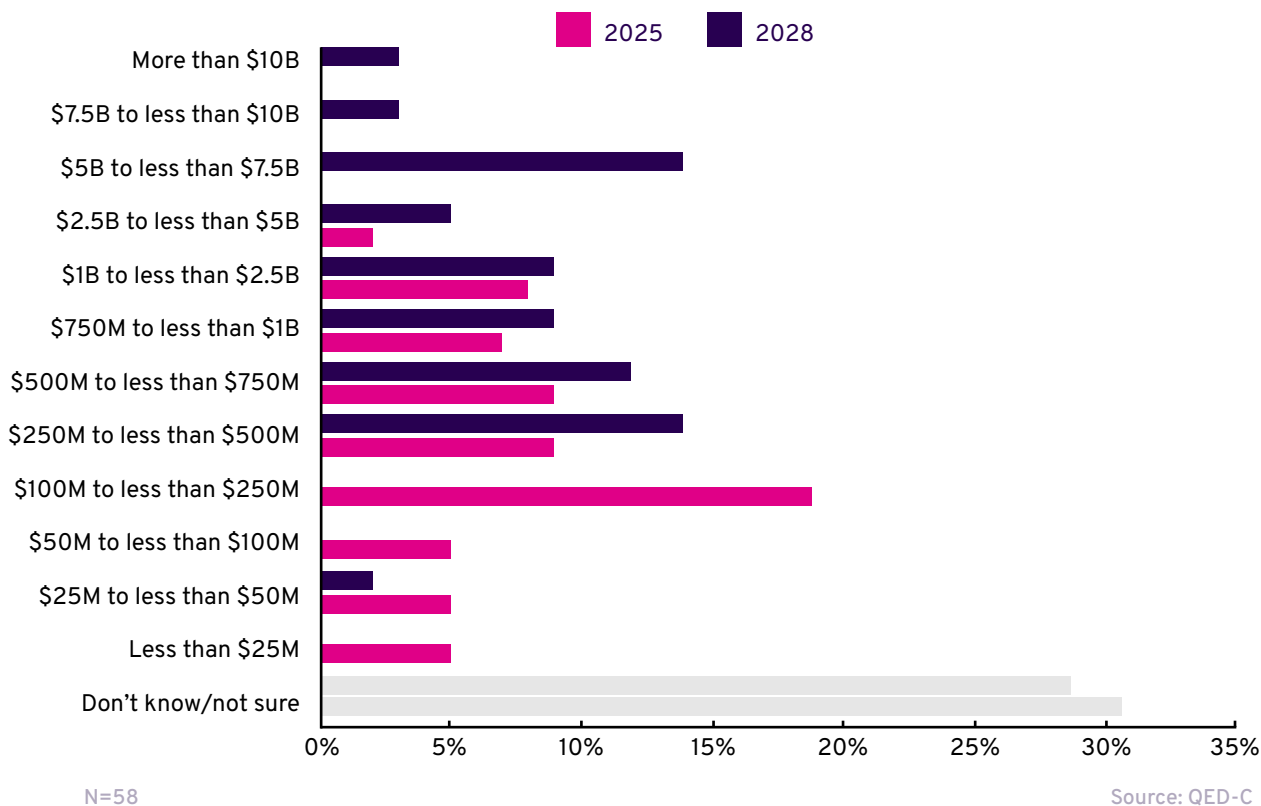


FIGURE 10: ESTIMATES OF GLOBAL QUANTUM SENSING MARKET SIZE IN 2025/2028



At the same time, estimates vary widely. The higher-end projections are not well supported by individual company revenue expectations. The dispersion of estimates suggests that the quantum sensing market is viewed through varying application-specific perspectives, contributing to a less cohesive understanding of total addressable market size at the global level.

TOP TECHNOLOGIES, APPLICATIONS, AND TARGET SECTORS

The distribution of quantum sensing technologies reflects a diversified technical landscape rather than convergence around a single dominant platform; only 20% of companies report focusing on a single technology. Neutral atoms are the most frequently cited primary technology focus, selected by 33% of respondents as their most important currently engaged quantum sensing platform (table 3). Photonic technologies follow at 20%, with solid-state spin systems (single spins) at 13% and superconducting circuits at 11%. No technology commands a majority primary preference. This structure contrasts with the quantum computing segment, where companies more frequently concentrate on a specific modality.

In quantum sensing, organizations appear more inclined to pursue parallel technological paths.

Quantum sensors use various technology platforms (figure 11). Twenty percent of companies indicate engagement across at least three distinct approaches, and four technologies—Rydberg atoms, photons, neutral atoms, and solid state spins—collectively account for almost three-quarters of reported commercial focus among top three choices. Rydberg atoms account for 19% of total selections, followed by photonic technologies at 18% and neutral atoms at 14% (figure 11). Solid-state spin approaches (both single and ensemble) and superconducting circuits cluster at 10–12%. Although neutral atoms lead in primary preference, the stronger relative position of Rydberg and photonic technologies in aggregate top three selections indicates that companies are not limiting themselves to a single dominant platform.

TABLE 3: TOP THREE QUANTUM SENSING TECHNOLOGIES IN RANK ORDER

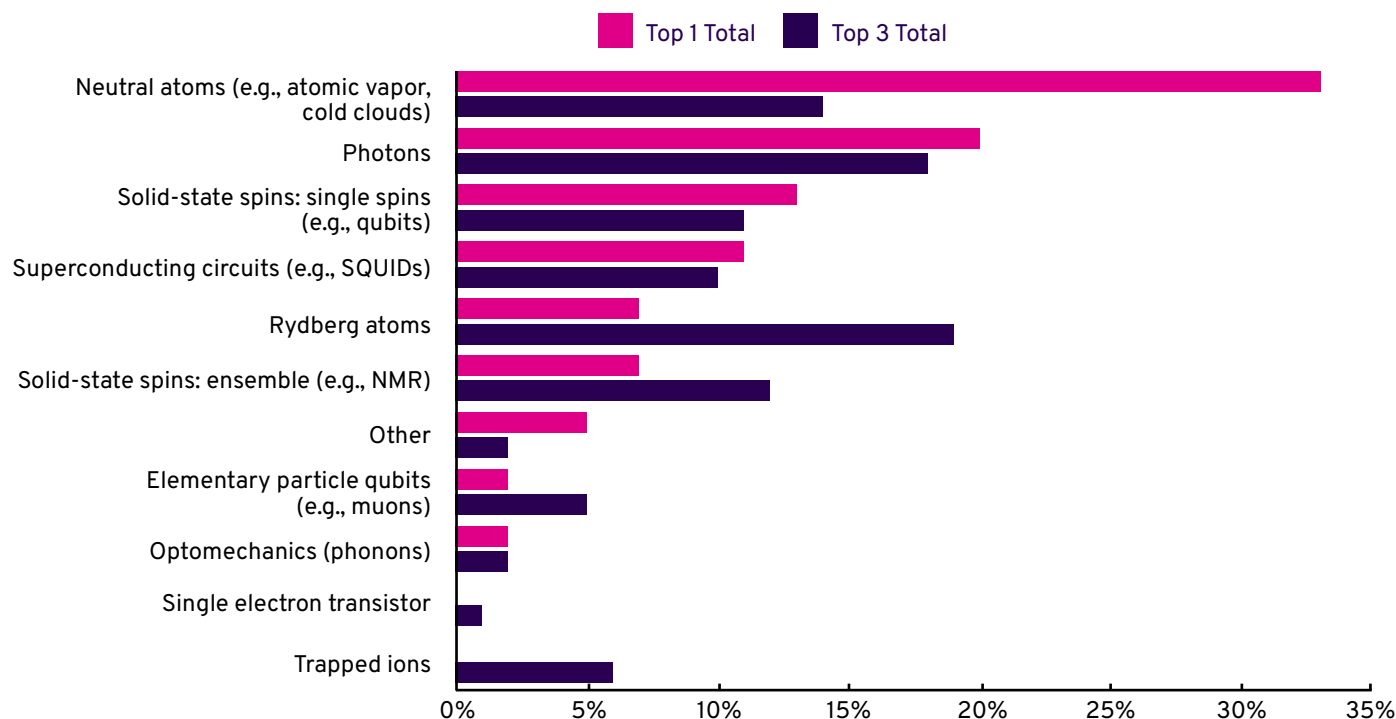
| Response | #1 | #2 | #3 |
|---|-----|-----|-----|
| Neutral atoms (e.g., atomic vapor, cold clouds) | 33% | 4% | 5% |
| Photons | 20% | 18% | 15% |
| Solid-state spins: single spins (e.g., quantum dots, single NV centers) | 13% | 15% | 5% |
| Superconducting circuits (e.g., SQUIDs, flux qubit, charge qubit) | 11% | 4% | 15% |
| Rydberg atoms | 7% | 29% | 20% |
| Solid-state spins: ensemble (e.g., NMR sensors, NV center ensembles) | 7% | 18% | 10% |
| Other | 5% | 0% | 0% |
| Elementary particle qubits (e.g., muons, neutrons) | 2% | 4% | 10% |
| Optomechanics (phonons) | 2% | 0% | 5% |
| Single electron transistor | 0% | 4% | 0% |
| Trapped ions | 0% | 4% | 15% |

N=45, Select top three options in order of importance

Source: QED-C

Note: NV is nitrogen-vacancy, SQUIDs are superconducting quantum interference devices, and NMR is nuclear magnetic resonance.

FIGURE 11: TOP THREE QUANTUM SENSING TECHNOLOGIES IN AGGREGATE



N=45, Select top 3 options in order of importance

Source: QED-C

Note: SQUIDs are superconducting quantum interference devices and NMR is nuclear magnetic resonance.

The maturity distribution indicates that, while commercial availability is present among quantum sensing companies, a substantial share of primary technologies remains in prototype or earlier development stages. Respondents were asked to first identify their single most important quantum sensing technology and then specify its maturity level. This linked structure ensures that maturity assessments correspond directly to each company’s primary technological focus rather than to secondary or exploration platforms.

For 2025, 14 of 45 respondents (31%) report that their most important quantum sensing technology is commercially available. An additional 17 respondents (37%) report that their primary technology is in either early or advanced prototype stages (nine early prototypes and eight advanced prototypes) (table 4). The remaining companies report concept or laboratory demonstration stages. Looking ahead to 2028, 58% anticipate having commercially available products for their most important technology.

TABLE 4: 2025 MATURITY LEVEL OF MOST IMPORTANT QUANTUM SENSING (QS) TECHNOLOGY

| Single Most Important QS Technology | Concept | Laboratory demonstration | Early prototypes | Advanced prototypes | Commercially available | Total |
|---|----------|--------------------------|------------------|---------------------|------------------------|-----------|
| Neutral atoms (e.g., atomic vapor, cold clouds) | 2 | 0 | 0 | 5 | 8 | 15 |
| Photons | 2 | 1 | 2 | 1 | 3 | 9 |
| Solid-state spins: single spins (e.g., quantum dots, single NV centers) | 0 | 1 | 1 | 2 | 2 | 6 |
| Superconducting circuits (e.g., SQUIDs, flux qubit, charge qubit) | 2 | 1 | 2 | 0 | 0 | 5 |
| Rydberg atoms | 0 | 1 | 1 | 0 | 1 | 3 |
| Solid-state spins: ensemble (e.g., NMR sensors, NV center ensembles) | 0 | 0 | 3 | 0 | 0 | 3 |
| Elementary particle qubits (e.g., muons, neutrons) | 1 | 0 | 0 | 0 | 0 | 1 |
| Optomechanics (phonons) | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | 7 | 5 | 9 | 8 | 14 | 45 |

Note: NV is nitrogen-vacancy, SQUIDs are superconducting quantum interference devices, and NMR is nuclear magnetic resonance.

N=45
Source: QED-C

Revenue allocations across quantum sensing applications are expected to remain stable between 2025 and 2028, with atomic clocks and magnetometers anchoring company-level revenue mixes (table 5). The “% Selected” column reflects the percentage of respondents who believe a given application will have a meaningful presence in the overall revenue distribution, while the “Average” column represents the mean revenue share assigned by those respondents.

TABLE 5: 2025 QUANTUM SENSING APPLICATIONS BY REVENUE 2025/2028

| Application | % Selected | 2025 (N=29) | | | 2028 (N=28) | |
|---|------------|-------------|------|-----|-------------|---------|
| | | Average | High | Low | % Selected | Average |
| Atomic clocks | 100% | 26% | 60% | 10% | 100% | 28% |
| Magnetometers | 100% | 21% | 80% | 5% | 100% | 24% |
| Quantum imaging (e.g., low-SNR imaging, lidar, radar) | 82% | 18% | 50% | 5% | 78% | 17% |
| Photon detectors | 75% | 17% | 50% | 5% | 75% | 15% |
| Inertial sensors | 82% | 12% | 50% | 5% | 85% | 14% |
| Gravimeters | 82% | 10% | 25% | 5% | 82% | 10% |
| Interferometers | 58% | 9% | 40% | 2% | 50% | 10% |
| Gyroscopes | 75% | 7% | 20% | 2% | 75% | 9% |
| Electrometers | 51% | 7% | 20% | 2% | 78% | 7% |
| Acoustic sensors | 44% | 5% | 10% | 2% | 39% | 3% |

Note: SNR is signal-to-noise ratio.

Source: QED-C

Magnetometers are anticipated to increase in revenue share from 21% in 2025 to 24% of a larger projected market in 2028. Photon detectors and acoustic sensors are anticipated to have a decrease in revenue share by two percentage points each from 2025 to 2028. There is no change in share anticipated for gravimeters and electrometers. Across the full set of applications, no category demonstrates a substantial change in relative revenue positioning between 2025 and 2028.

Aerospace is identified as the single most promising commercial end-use market for quantum sensing in 2025 (table 6). Thirty-nine percent of respondents selected aerospace as their top-ranked category, exceeding computer, electronic, and optical products (15%) and cybersecurity (13%).

When considering combined top-three selections, aerospace remains the leading category, accounting for 18% of total selections (figure 12). Telecommunications, biosciences, and other sectors show broader representation across combined top three choices despite lower first-choice percentages. This pattern indicates that, while aerospace leads as the primary market, perceived commercial opportunity is distributed across multiple end-use sectors rather than concentrated in a single area.

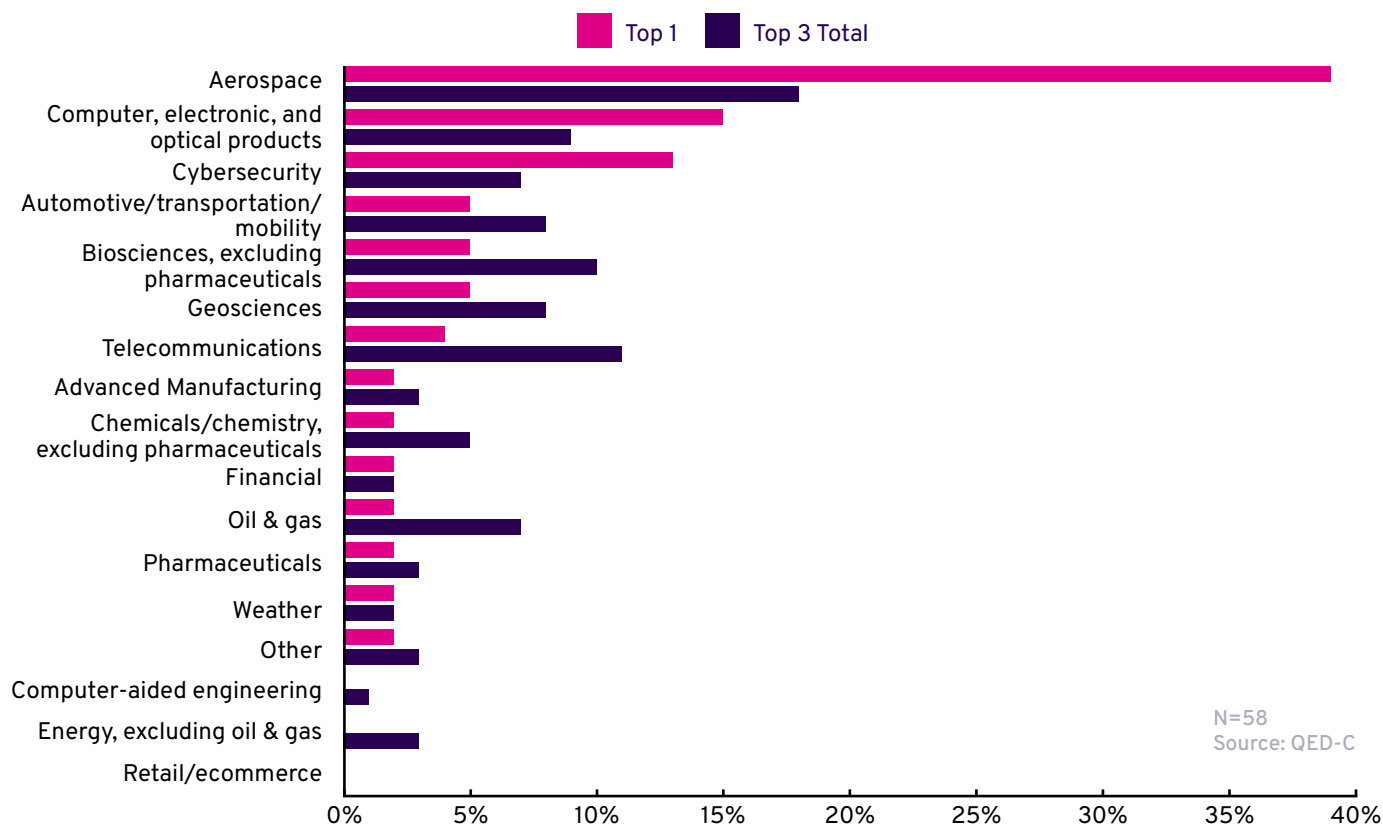
TABLE 6: TOP THREE MOST PROMISING QUANTUM SENSING COMMERCIAL SECTORS IN RANK ORDER

| Response | #1 | #2 | #3 |
|--|-----|-----|-----|
| Aerospace | 39% | 8% | 6% |
| Computer, electronic, and optical products | 15% | 4% | 8% |
| Cybersecurity | 13% | 4% | 4% |
| Automotive/transportation/mobility | 5% | 11% | 8% |
| Biosciences, excluding pharmaceuticals | 5% | 13% | 12% |
| Geosciences | 5% | 4% | 15% |
| Telecommunications | 4% | 24% | 4% |
| Advanced manufacturing | 2% | 2% | 6% |
| Chemicals/chemistry, excluding pharmaceuticals | 2% | 7% | 6% |
| Financial | 2% | 0% | 4% |
| Oil & gas | 2% | 7% | 11% |
| Pharmaceuticals | 2% | 4% | 4% |
| Weather | 2% | 2% | 2% |
| Other | 2% | 6% | 2% |
| Computer-aided engineering | 0% | 0% | 4% |
| Energy, excluding oil & gas | 0% | 4% | 4% |
| Retail/ecommerce | 0% | 0% | 0% |

N=58

Source: QED-C

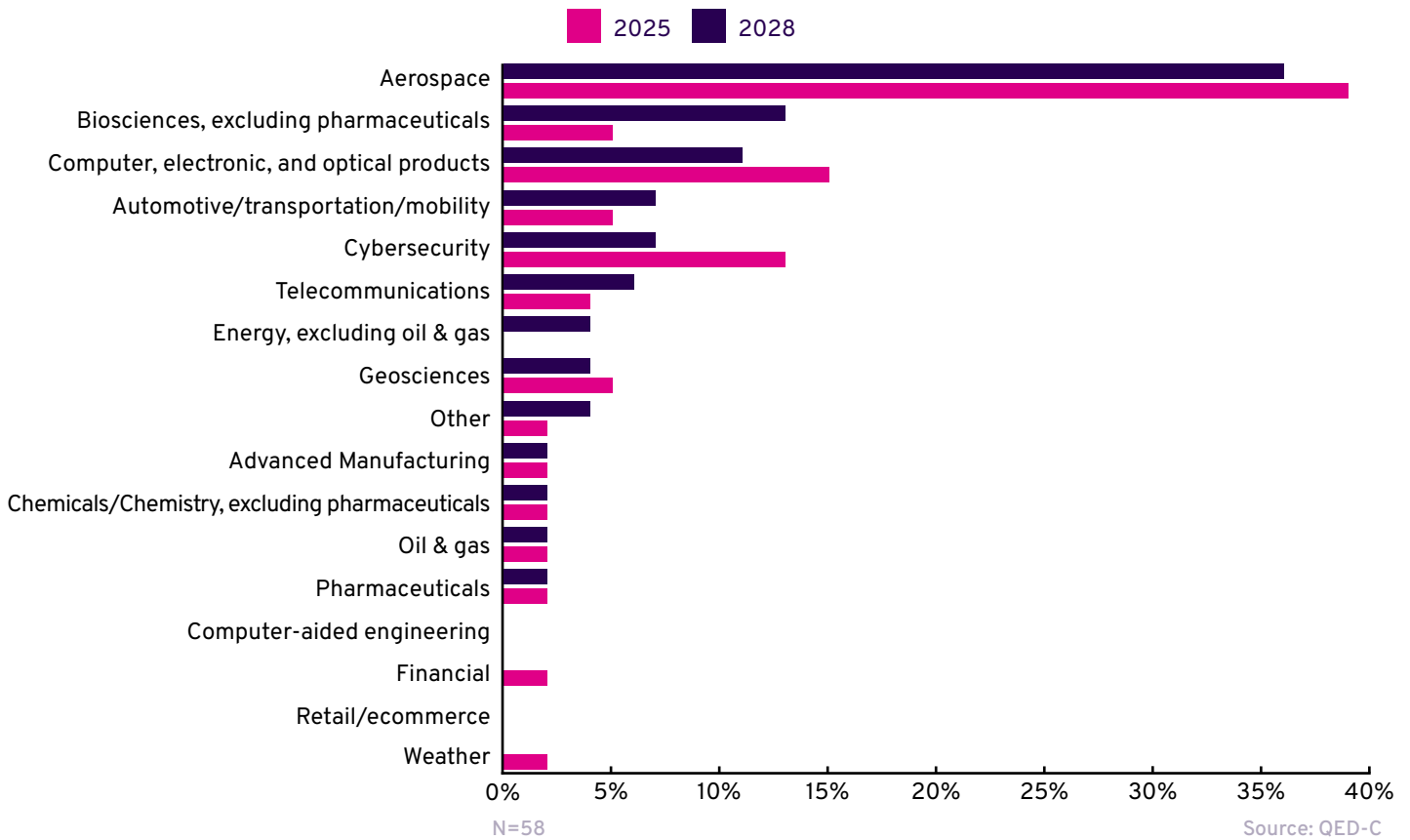
FIGURE 12: TOP THREE MOST PROMISING QUANTUM SENSING COMMERCIAL SECTORS IN AGGREGATE



N=58

Source: QED-C

FIGURE 13: MOST PROMISING QUANTUM SENSING COMMERCIAL SECTORS 2025/2028



Aerospace is also the leading commercial sector for 2028 (figure 13). Biosciences show the most notable increase between 2025 and 2028, rising from 5% to 13% in first-choice selections. The automotive/transportation/mobility, telecommunications, and energy-related markets are also expected to grow in prominence.

Overall, the distribution reflects continuity in perceived market leadership, with incremental adjustments rather than significant reordering across commercial end-use markets. Government defense remains the single largest individual market segment, although commercial participation is expected to expand meaningfully over the forecast period (figure 14). Major market sectors were evaluated for 2025 and projected for 2028 to assess revenue distribution across government (defense and civil), commercial, and academic markets. After excluding 31% of responses categorized as “Don’t know/not sure,” combined government segments are projected to represent 47% of total quantum sensing revenue in 2028, representing a potential half billion dollar market. Within this total, the government defense segment alone accounts for 35%, making defense the single largest individual revenue segment and approximately three times the size of the civil government segment.

The commercial segment is projected to represent 34% of total revenue in 2028, increasing from 25% of a smaller total market in 2025. While commercial participation expands meaningfully over the forecast period, it does not surpass the combined government share (47%). Academic markets account for the remaining share, declining from 28% in 2025 to 19% in 2028.

Taken together, the projected revenue structure indicates continuity rather than reordering across segments. Government—particularly defense—continues to anchor the market. This aligns with the fact that aerospace is seen as the most promising quantum sensing sector both now and in 2028. Quantum sensing comprises a number of diverse technologies that span a wide range of applications and use cases, and the demand for such technologies is on the rise.

FIGURE 14: QUANTUM SENSING BY MARKET SEGMENT AND REVENUE 2025/2028

